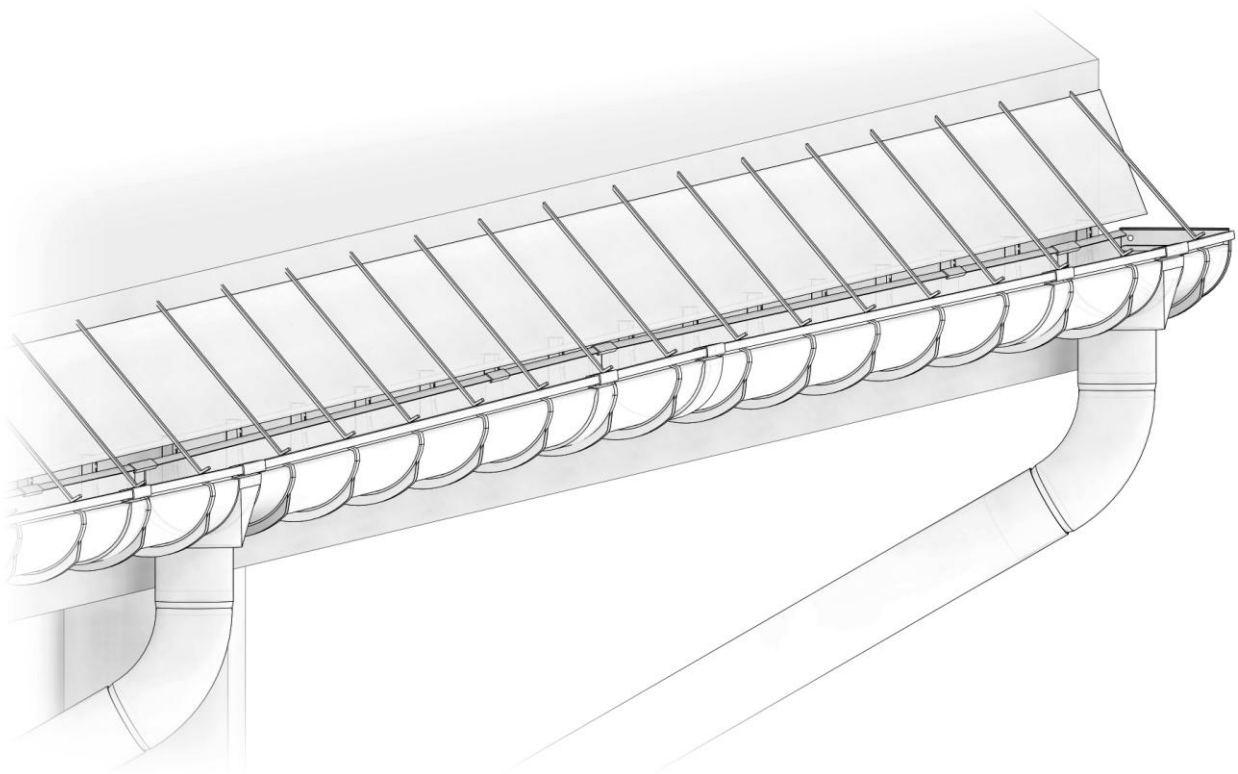


GROVIK GUTTER FOR REVIT

Revit Add-in User Manual

Version 1.0 | August 2026

A practical guide to creating, editing, configuring and documenting Grovik gutter systems in Autodesk Revit.



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GROUP

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This manual follows a task-oriented workflow. Start with the Quick Start section for a first gutter system, then use the editing and configuration sections for detailed control.

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1. Introduction

1.1 What is Grovik Gutter for Revit?

Grovik Gutter for Revit is a Revit family package containing the relevant Grovik gutter components modeled in 3D. It enables architects and BIM modelers to create detailed, BIM-ready gutter system models directly in Autodesk Revit.

The package includes an add-in that simplifies placement, editing and adjustment of gutter systems. Instead of placing every component individually, users can define the intended gutter geometry and let the add-in generate and update the required Revit family instances.

1.2 Who is this manual for?

This manual is intended for architects and BIM modelers working in Autodesk Revit. Basic knowledge of Revit navigation, roofs, floors, families and schedules is assumed.

1.3 Two ways to build a gutter system

- Manual placement — individual Revit family instances can be placed manually. This provides direct control, but can become tedious for complete gutter systems.
- Add-in driven placement and editing — the recommended approach. The add-in provides tools for defining runs, placing drain points, editing control geometry and generating the required components.

1.4 Key concepts and terminology

Gutter run — A continuous chain of connected gutter edges.

Gutter edge — A picked roof or floor edge along which a gutter is generated.

Control geometry / control lines — The hypothetical path representing the expected position of the Revit family elements before or independently of component generation.

Drain point — A control point where water is directed into a downpipe.

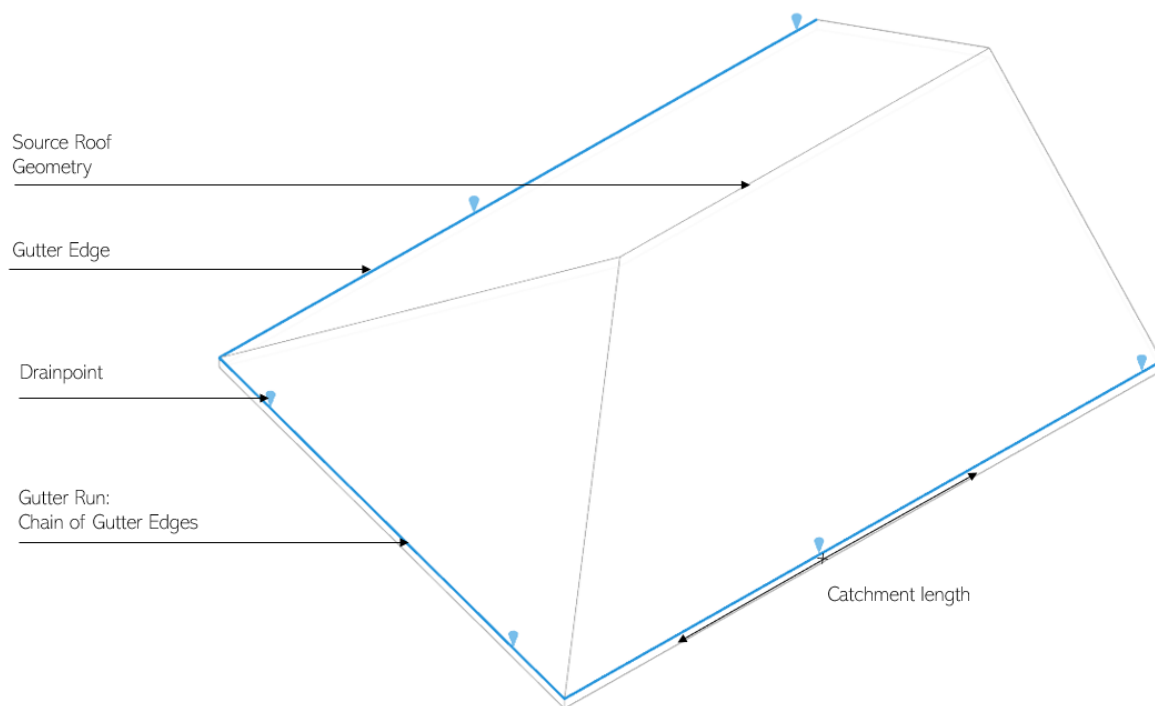
Outlet — The component connecting the gutter to the downpipe at a drain point.

Downpipe — The vertical drainage element, implemented as a complex nested family.

Slope profile — The chain of lines showing how the gutter system is sloped.

Catchment length — The gutter length draining toward a particular drain point.

Build / Rebuild Run — The operation that generates or updates the actual Revit family components to match the control geometry and selected settings.



1.5 Disclaimer

The **Grovik Gutter for Revit** add-in generates gutter systems and related Revit components based on the selected settings, Revit model geometry and available GROVIK product data. Due to Revit limitations, project-specific conditions and the complexity of automatically generated systems, the resulting geometry and component configuration should always be reviewed before being used for construction or ordering purposes.

The material segmentation and *Stock Demand* values provided by the add-in are optimization results intended to support material planning and scheduling. Although the system is designed to minimize material waste, the calculated quantities should be verified against the final design and GROVIK requirements before placing an order.

Product availability, product properties and add-in functionality may change over time. The information and calculations provided by the add-in reflect the product data and functionality available in the installed version. **Always contact GROVIK to verify product details, quantities and specific requirements before placing orders based on the BIM model or add-in output.**

2. Getting Started

2.1 Requirements and installation

Before starting, ensure that a supported version of Autodesk Revit is installed and that the Grovik Gutter for Revit package has been installed and activated according to the supplied licensing and installation instructions.

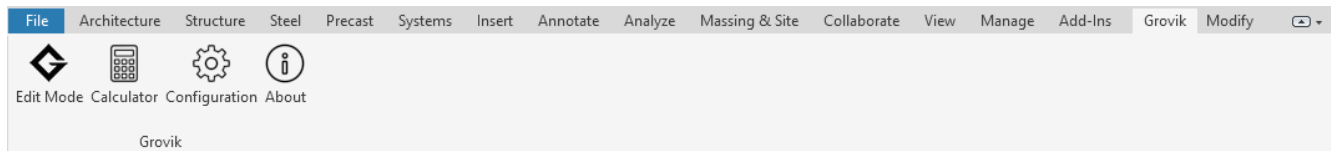
The exact supported Revit versions, licensing method and installer procedure are product-version dependent and should be checked against the release documentation supplied with your Grovik package.

2.2 Loading the Grovik family package

Load the Grovik family package into the Revit project using the supplied family files or the installation workflow. The gutter, outlet, downpipe, bracket, flashing and connector families used by the add-in must be available to the project before the corresponding components can be generated.

2.3 The Grovik ribbon and toolbar overview

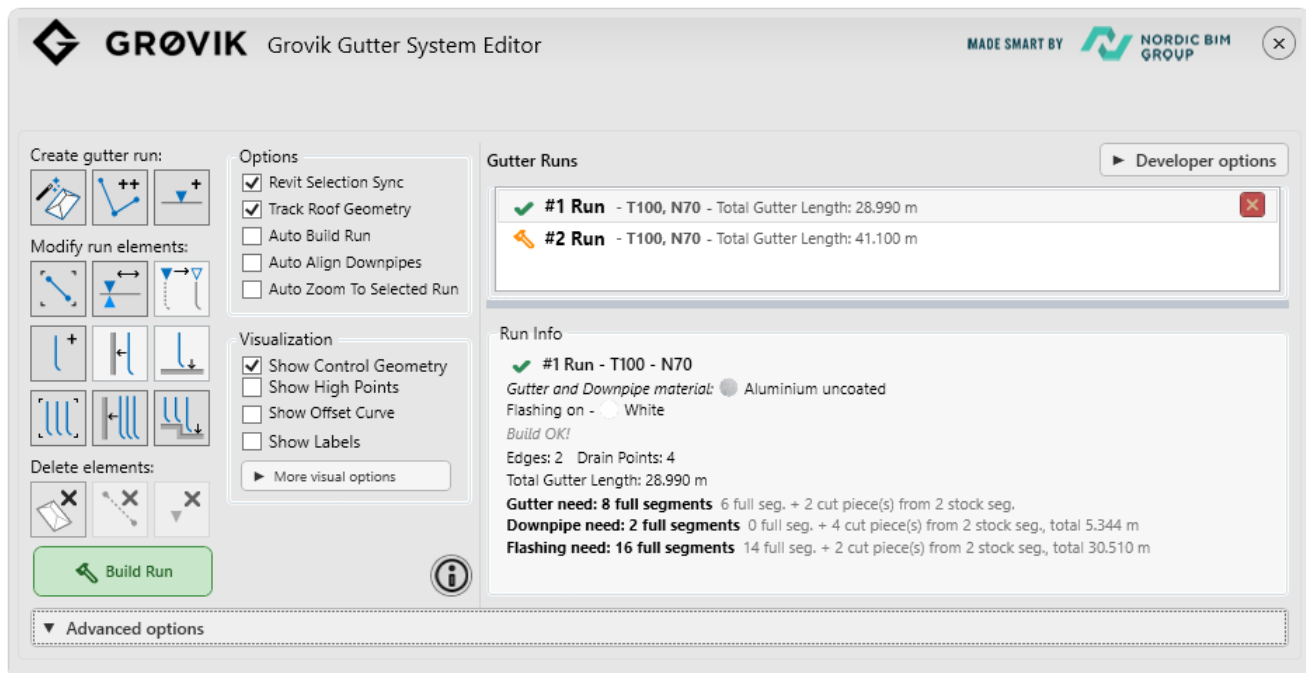
After installation, the Grovik tools are available through the Revit interface. The exact ribbon layout may vary by Revit version and product release. The main workflow is centered around the gutter-system editor and its action buttons.



2.4 The Edit Mode / Editor window at a glance

- *Gutter Run* list — lists the defined runs and their IDs.
- *Run Info* overview panel — summarizes key properties of the selected run.
- *Advanced options* — exposes detailed configuration and diagnostic information.
- *Action button panel* — provides tools such as *Add Edge*, *Add Drain Point*, *Build Run* and downpipe operations.

Tip: Keep the *Grovik Edit Mode* window open while refining a system. It provides immediate feedback about the selected run and its generated components.



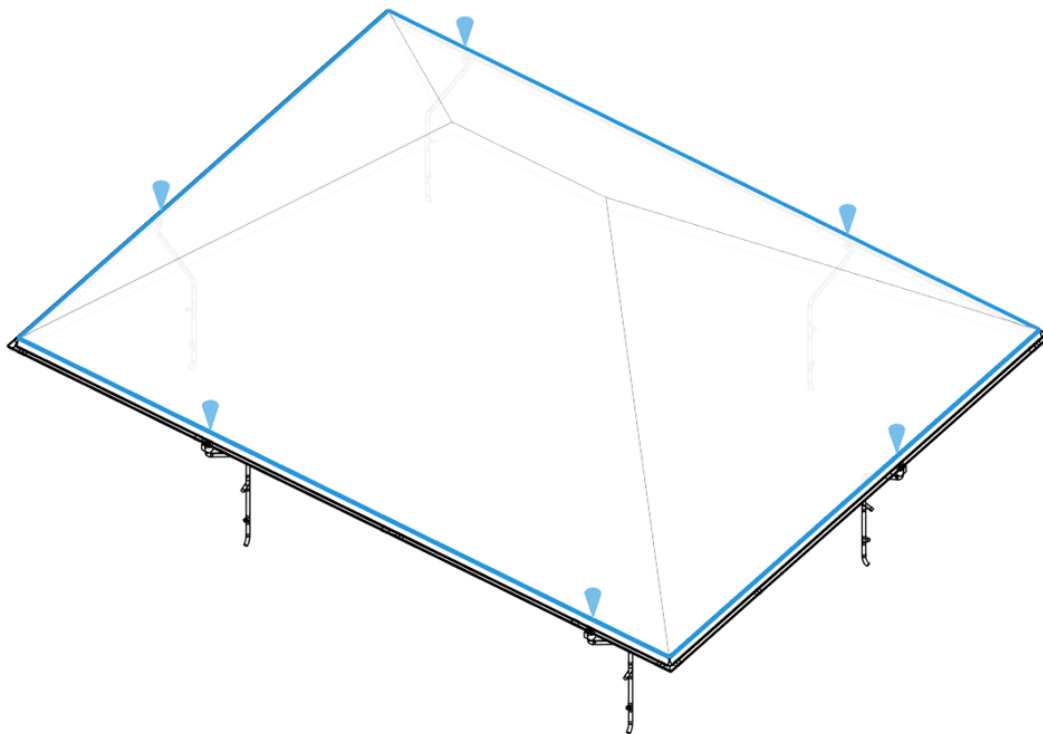
3. Quick Start — The One-Click Solution

3.1 One-Click Solution: Generating a gutter system automatically



The *Generate Gutter for Run* as known as the *One-Click Solution* is the fastest way to create an initial gutter system. It automatically detects relevant roof edges, creates the corresponding gutter run geometry and distributes drain points according to the default drain-spacing settings.

1. Open *Grovik Edit Mode* window.
2. Click the *Generate Gutter for Run* button.
3. Pick a Roof element in the Revit viewport.
4. Allow the add-in to detect the relevant roof edges.
5. Review the generated gutter run(s) and drain points.
6. Refine the control geometry and run properties as required.
7. Build the Run to generate the Revit family components.



Control geometry and generated Revit Family Components

3.2 What gets created

- One or more gutter runs.
- Control geometry representing the intended component path.
- Drain points distributed according to the configured spacing.
- Grovik Gutter Revit Family components with detailed technical data and specification

3.3 When to use it

Use the *One-Click Solution* as a starting point when the roof geometry provides a suitable basis for automatic detection. The generated result should be reviewed and refined before final documentation.

4. Building a Gutter Run Manually

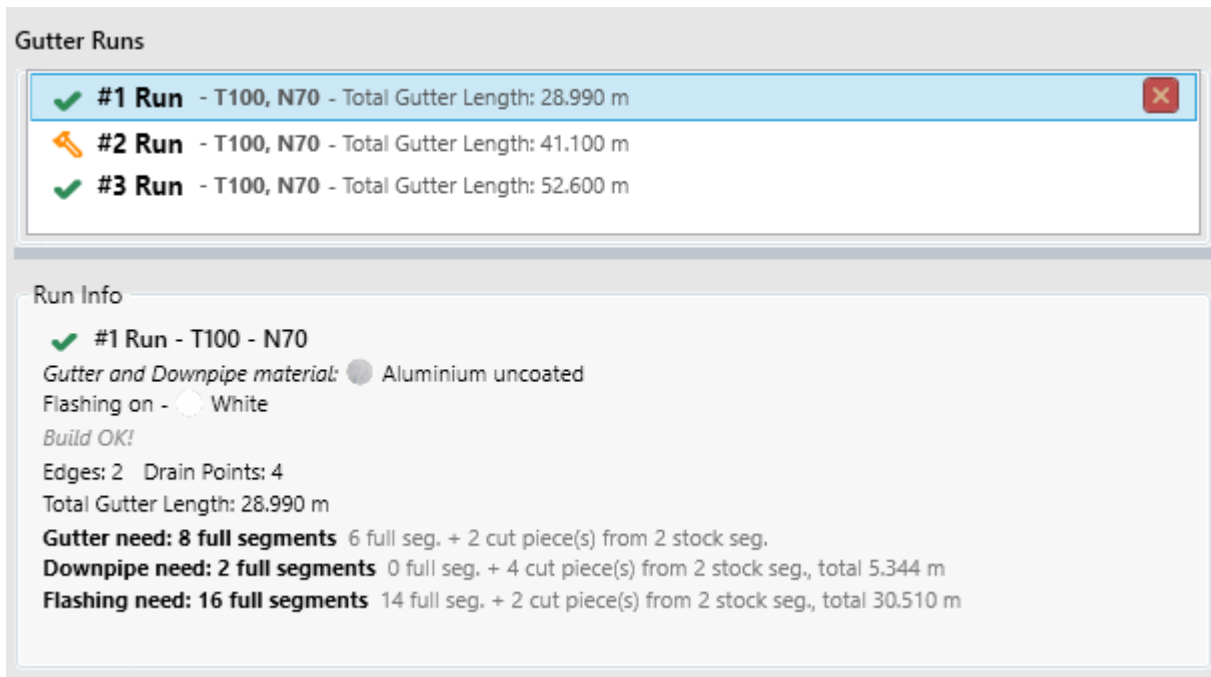
4.1 Add Edge — picking gutter edges



Use *Add Edge* when you want to define a run explicitly. Pick the relevant roof or floor edges. Connected edges are automatically recognized as part of a continuous gutter-run chain.

4.2 Understanding the gutter run list

Each detected or manually created run appears in the *Edit Mode* window. Runs receive an automatic ID, which can also be displayed in the model using *Show Labels* option.



4.3 Open vs. closed chains

A run can form an open chain or a closed chain. Open chains have distinct start and end points, which makes start/end extensions relevant. Closed chains form a continuous loop and do not have an independent start and end in the same way.

5. Working with Drain Points

5.1 Adding drain points

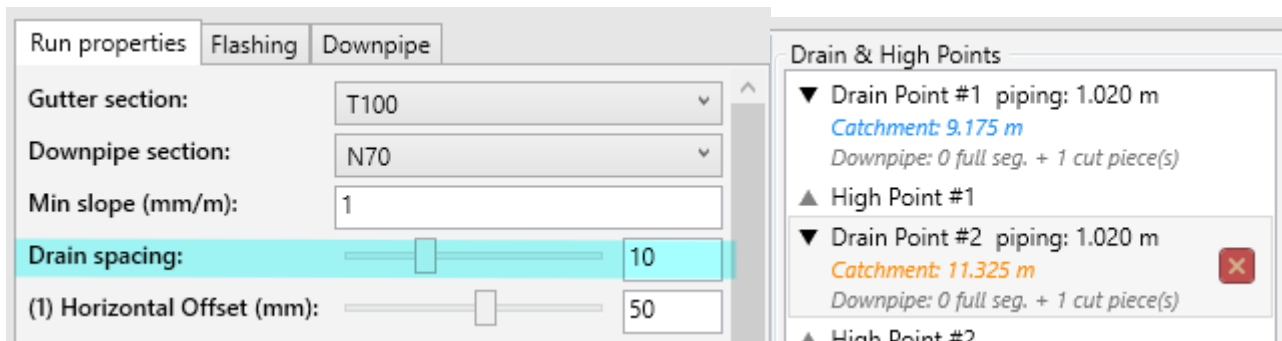


Use *Add Drain Point* command to place a drain point manually. For automatically generated runs, drain points are initially distributed evenly according to the predefined drain-spacing value.

5.2 Checking drain spacing

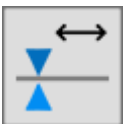
Expand the *Advanced options* of the *Grovik Edit Mode* window to access the *Drain & High points* list. This list provides feedback about the catchment length associated with each drain point.

The *Drain Spacing* value represents a design requirement that the gutter system is intended to comply with. The warning highlights any deviation from this requirement by indicating where the actual catchment length exceeds the specified value.



If a catchment length exceeds the configured drain-spacing value, consider adding additional drain points or changing the drain-spacing setting to a higher value.

5.3 Moving drain points



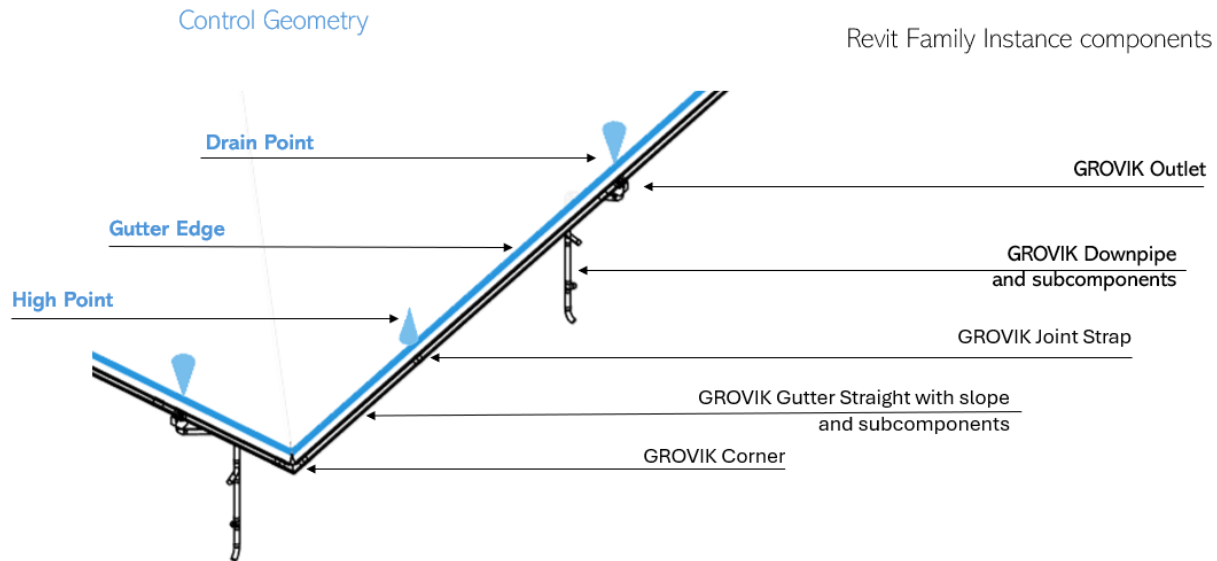
Use *Move Point* to reposition a drain point along the *Gutter Edge*.

Moving a control point changes the control geometry and if *Auto Build Run* is enabled, the corresponding Revit components are updated automatically.

6. Editing the Control Geometry

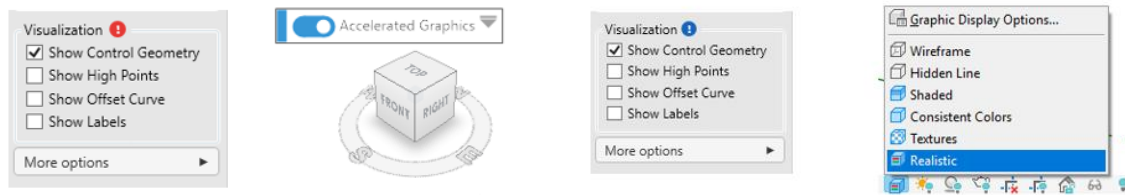
6.1 What control geometry represents

Control geometry represents the expected path and component positions of the gutter system. It is the design layer used by the add-in to determine what the generated Revit family instances should look like and where they should be placed.



Control geometry and generated Revit Family Components

Note that the Accelerated Graphics mode which was introduced in Revit 2026 and Revit 2027 does not support displaying temporary geometry in the viewport, so it can not display Control Geometry. Turn off the Accelerated Graphics mode while editing the Control Lines and Control Drain Points so they become visible.



Also note that temporary geometry is not displayed in Realistic View mode. Switch to another graphics style for Control Geometry to become visible.

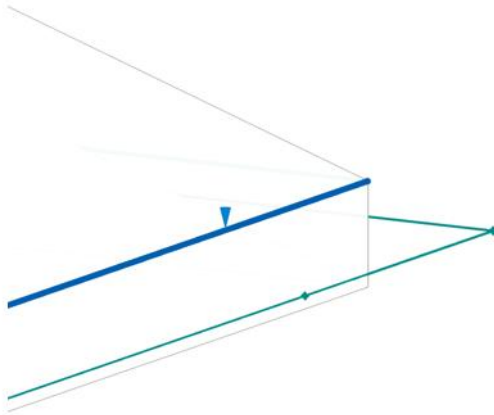
6.2 Slope settings

Set the gutter-system slope according to the required drainage design. As an example, 1 mm/m corresponds to a 0.1% slope.

6.3 Horizontal and vertical offset

- *Horizontal offset* adjusts the Edge loop relative to the roof geometry and component positioning.
- *Vertical offset* moves the run vertically relative to the Edge loop of the source roof geometry.

- *Show Offset Curve* displays the resulting offset curve in the 3D viewport.
- Changing offset values provides real-time visual feedback in the viewport.

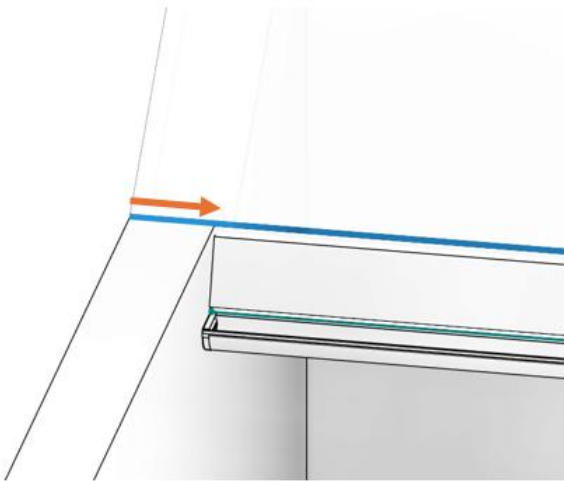


Run properties	Flashing	Downpipe
Gutter section:	T100	
Downpipe section:	N70	
Min slope (mm/m):	1	
Drain spacing:	10	
(1) Horizontal Offset (mm):	238	
(2) Vertical Offset (mm):	150	

6.4 Start and end extensions

For open chains, *Start Extension* and *End Extensions* allow the run to be extended beyond the defined gutter edge.

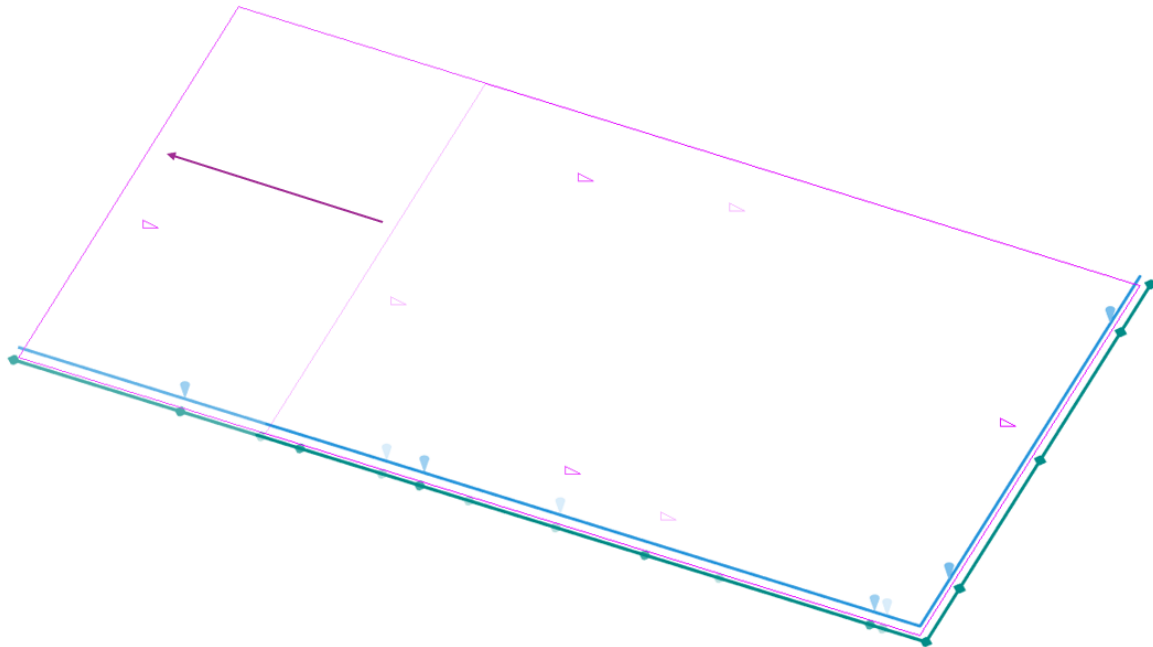
Positive and negative values can be used to match the intended connection or termination condition, for example where a run continues toward a connecting wall.

A screenshot of the 'Downpipe' tab in the Grovik Gutter for Revit software interface. The interface is a property palette with a title bar containing 'Run properties', 'Flashing', and 'Downpipe'. The 'Downpipe' tab is active. The properties listed are: 'Gutter section:' with a dropdown menu showing 'T100'; 'Downpipe section:' with a dropdown menu showing 'N70'; 'Min slope (mm/m):' with a text input field showing '1'; 'Drain spacing:' with a slider and a text input field showing '10'; '(1) Horizontal Offset (mm):' with a slider and a text input field showing '50'; '(2) Vertical Offset (mm):' with a slider and a text input field showing '200'; '(7) Start Extension (mm):' with a slider and a text input field showing '-200'; and '(8) End Extension (mm):' with a slider and a text input field showing '0'. The last two properties, '(7) Start Extension (mm):' and '(8) End Extension (mm):', are highlighted with a light blue background.

7. Keeping in Sync with the Architecture

7.1 Track Roof Geometry

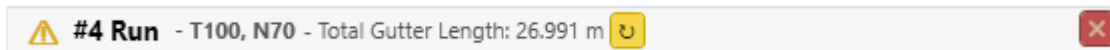
When *Track Roof Geometry* option is enabled, the control geometry remains linked to the relevant Revit geometry. Changes to the roof can therefore be followed automatically by the gutter system.



7.2 Manual refresh

When *Track Roof Geometry* is disabled, the add-in still recognizes the differences between the defined *Gutter Edges* and the modified roof geometry, and flags the *Gutter Run* as to-be-updated in the *Run List*.

Use the yellow *Refresh* button in the *Run List* to synchronize the defined edges with the changed source geometry.

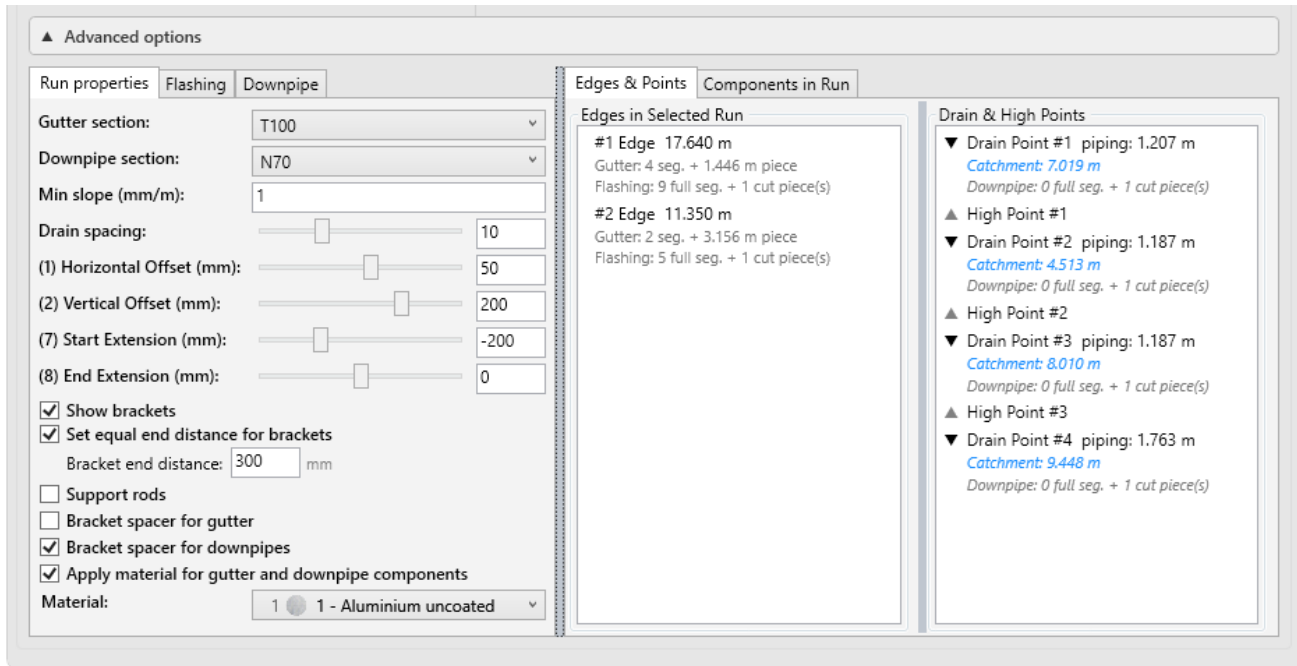


Refresh can add or remove edges as required, for example when a slope-defining edge has been removed from the roof.

8. Gutter Run Properties and Product Selection

8.1 Advanced run options

The *Advanced Options* panel provides detailed settings and diagnostic information. Use it when the basic run properties are not sufficient to achieve the intended result or when you need to inspect drain/high-point information and other advanced parameters.



8.2 Gutter section / cross-section

Select the required gutter section, such as *T100*, *T120*, *T125*, *T150* from the available product options.

8.3 Downpipe section

Select the required downpipe cross-section from the available product options, such as *N70* or *N85*.

8.4 Accessories and display options

- *Show Brackets* — controls bracket display/generation.
- *Support rods* — configures the relevant support components.
- *Bracket spacers for downpipes* — controls the relevant support/detailing option.
- *Apply material* — controls the material representation of generated Revit family components.

The screenshot shows the 'Downpipe' tab of the Grovik Gutter for Revit properties panel. It contains the following settings:

- Run properties** | **Flashing** | **Downpipe**
- Gutter section:** T100 (dropdown)
- Downpipe section:** N70 (dropdown)
- Min slope (mm/m):** 1 (text input)
- Drain spacing:** 10 (slider and text input)
- (1) Horizontal Offset (mm):** 238 (slider and text input)
- (2) Vertical Offset (mm):** 150 (slider and text input)
- (7) Start Extension (mm):** 0 (slider and text input)
- (8) End Extension (mm):** 0 (slider and text input)
- ☒ **Show brackets**
- ☐ **Set equal end distance for brackets**
- Bracket end distance:** 300 mm (text input)
- ☐ **Support rods**
- ☐ **Bracket spacer for gutter**
- ☒ **Bracket spacer for downpipes**
- ☒ **Apply material for gutter and downpipe components**
- Material:** 1 - Aluminium uncoated (radio button and dropdown)

8.5 Flashing

Flashing can be enabled or disabled for the roof edge and an available flashing type can be selected. Because the product range can be large, use the filtering dropdowns, such as color filters, to narrow the product list.

Run properties | Flashing | Downpipe

☒ Generate flashing

Selected product:
B-205 - 0,6mm - customizable - ☒ Aluminium uncoated - Custom: 1

Horiz. offset (mm):

Vert. offset (mm):

Reset filters

Material thickness:

Flashing type:

Top angle:

Height:

Custom value (mm):

Color:

Flashing product:
B-205 - 0,6mm - customizable - ☒ Aluminium uncoated - Custom

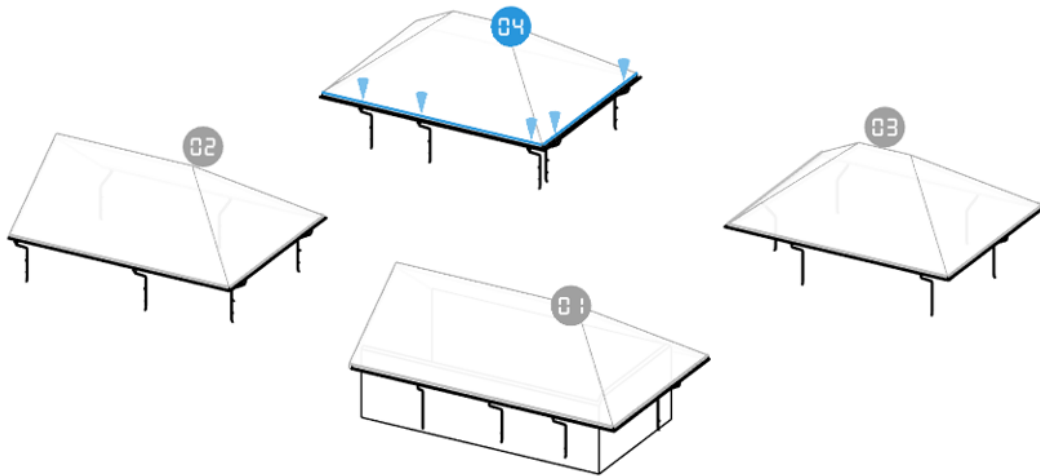
9. Multiple Runs and Visual Options

9.1 Navigating multiple runs

Select a run in the gutter run list to switch the Editor context to that run and review or modify its settings.

9.2 Labels

Enable Show Labels to display run IDs above the corresponding runs in the viewport.



9.3 Visual options

- Control curve thickness.
- Drain-point cone size.
- Label size.
- Offset-curve thickness.

You can reveal these settings by expanding in the *More options* button to adjust the visualization to your needs.

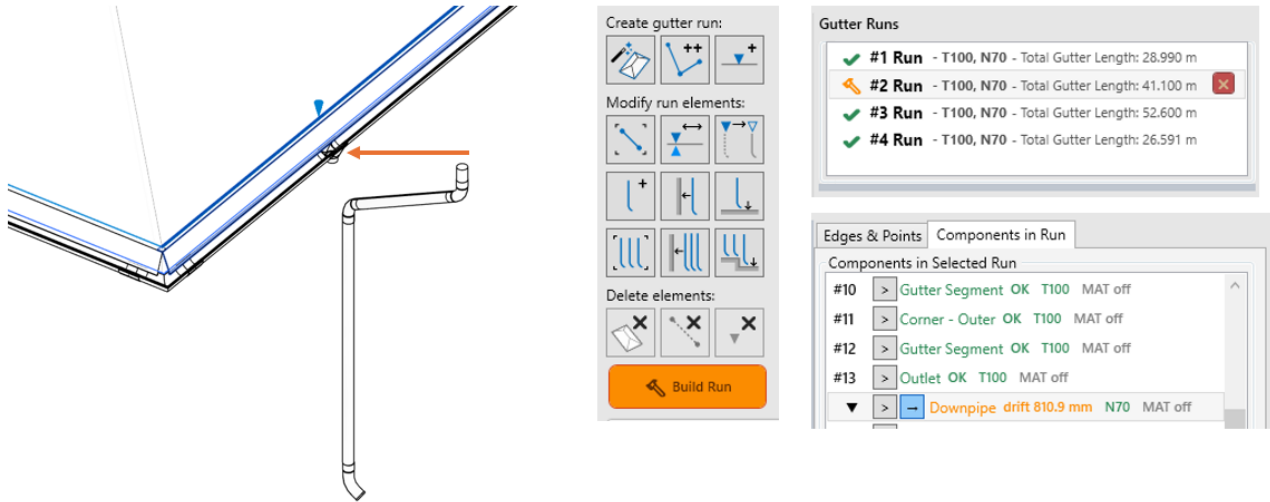
10. Generating the Revit Family Components (Build Run)

10.1 Build Run

Build Run generates or updates the actual Revit family components so that they match the current control geometry and selected Gutter Run settings.

10.2 The 'Needs to be rebuilt' state

A *Build Run* button, and also the Run's symbol in the *Run List* turns orange when the existing Revit family instance values no longer match the expected values. The Components in *Run List* can be used to identify the cause of the mismatch, such as a different gutter section, bracket setting or a drifted position, etc.



10.3 Fixing mismatches

Click *Build Run* to bring the generated components back in line with the current control geometry and set the required properties.

10.4 Auto Build Run

Auto Build Run can automatically rebuild the generated components after relevant changes, such as roof-geometry edits, offset changes, profile type changes or drain-point moves.

10.5 Performance note

Some families, particularly downpipes and bracket assemblies, are complex nested families. Rebuilding can therefore take time depending on project size and computer performance.

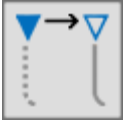
11. Downpipe Configuration

11.1 Repositioning downpipes

To reposition a downpipe you can move the drain point in the control geometry rather than moving the generated Revit downpipe instance directly, and regenerate the Revit Family components afterwards.

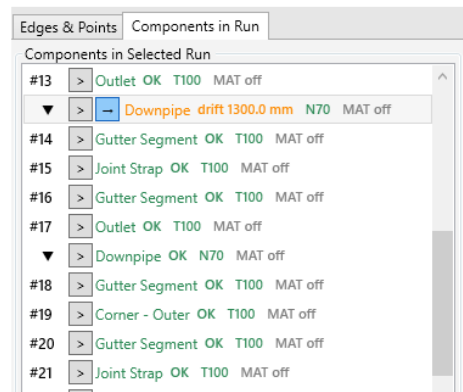
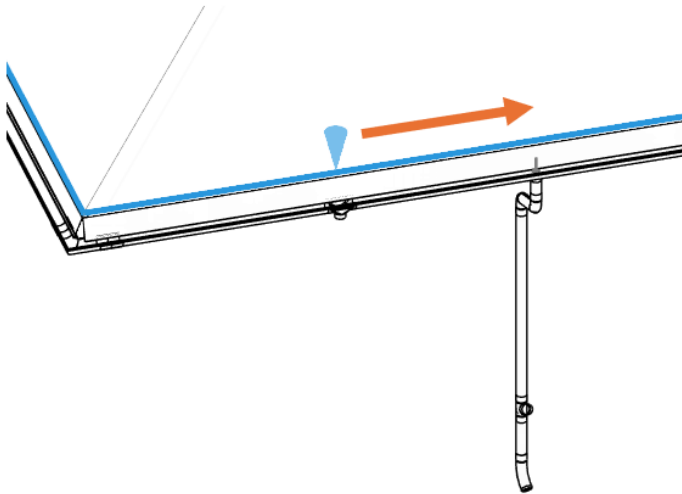
With *Auto Build Run* enabled, the generated components follow the drain-point position automatically.

11.2 Drift handling: build vs. snap



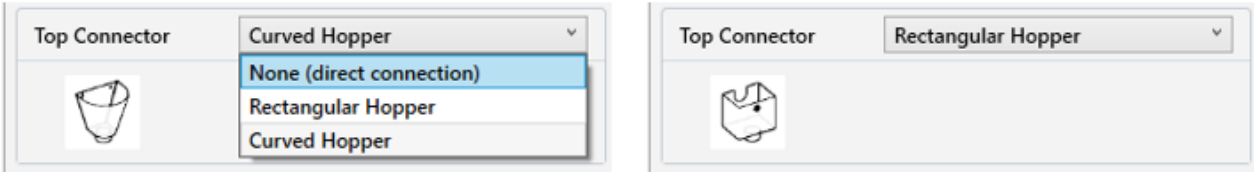
If the Revit instance and the drain control point no longer coincide, the run requires rebuilding to resolve the contradiction.

- *Build Run* moves the generated downpipe back to the expected control-point position.
- *Snap Drain Point to Drifted Instance* does the reverse: it moves the control point to the current instance position.
- A blue colored *Snap Button* appears in the *Component List* when an outlet/drain point is drifted.



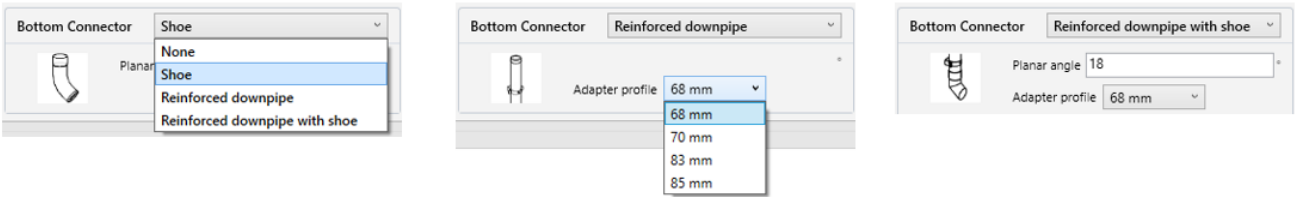
11.3 Top connector options

The top connector options determine how the top of the downpipe connects to the outlet. The 'None' option represents a simple connection to the outlet.



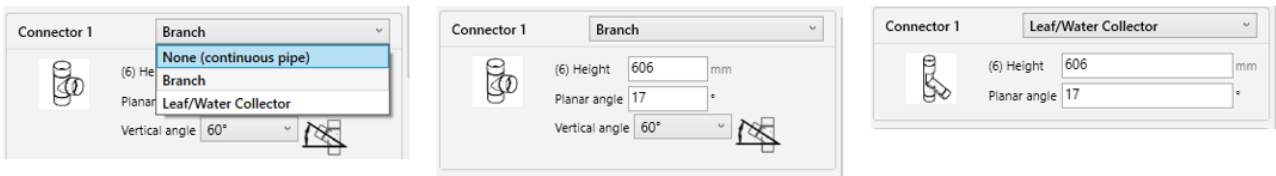
11.4 Bottom connector options

Available bottom connector configurations include *Shoe*, *Reinforced Downpipe*, and *Reinforced Downpipe with Shoe*. Each configuration exposes its relevant product values for further adjustment.



11.5 Intermediate connectors

Intermediate connector elements can be added along the vertical downpipe segment. Depending on the connector type, adjust height, planar angle and, for branch connectors, vertical angle.



11.6 Editing multiple downpipes at once

Select multiple downpipes and adjust shared connector or property values simultaneously. Complex nested families may make bulk changes slower on larger projects.

11.7 Attaching an existing downpipe

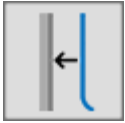


Use *Attach Downpipe* to incorporate an existing downpipe into the gutter system. Select the run or a relevant component, activate *Attach Downpipe*, then pick the existing downpipe. The selected downpipe becomes part of the system and receives the required outlet.

If the attached downpipe was farther away from the Gutter Run, it snaps to the closest point on the Gutter Run available.

Note: Only downpipes that are not already part of another Gutter Run are available for attachment.

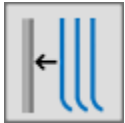
11.8 Aligning / projecting downpipes



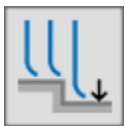
Align selected Downpipe to a point on wall – lets the user pick a point on a wall to project the downpipe to.



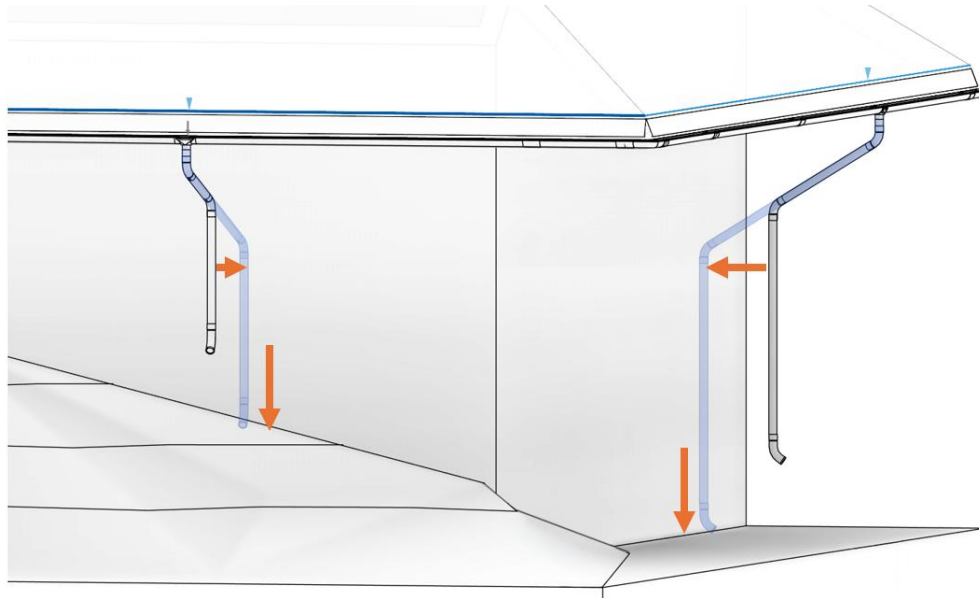
Align Downpipe to Floor – lets the user pick a horizontal surface to align the bottom end of the Downpipe to.



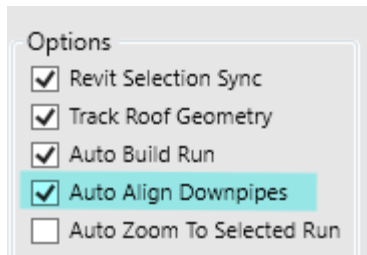
Project Selected Downpipes Horizontally — projects selected downpipes horizontally to the first wall they hit, using their existing planar rotation angle.



Project Selected Downpipes Vertically — projects selected downpipes vertically in their current position to the first Floor / Topography surface they hit.



- **Auto Align Downpipes** option — when *Build Run* is executed, downpipes are automatically projected horizontally and vertically to the first surface they hit.

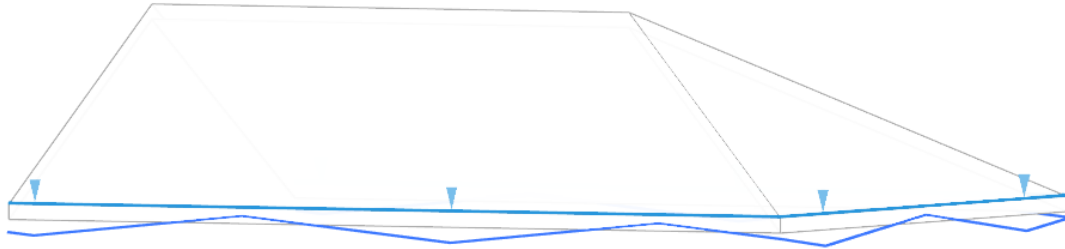


Note: Since downpipes are complex Revit elements containing nested geometry, enabling this option may increase the generation time.

12. Slope exaggeration (visualization aid)

Slope exaggeration is a visualization aid for reviewing drainage relationships. Temporarily increasing the slope, for example to 100 mm/m, makes the elevation differences easier to see.

Enabling *Slope profile preview* in the *Visualization options* shows the displays the slope chain as lines, allowing the proposed drainage relationship to be reviewed quickly before the physical Revit components are generated.



The operation recalculates the position and slope of the system elements and the outlet elevation.

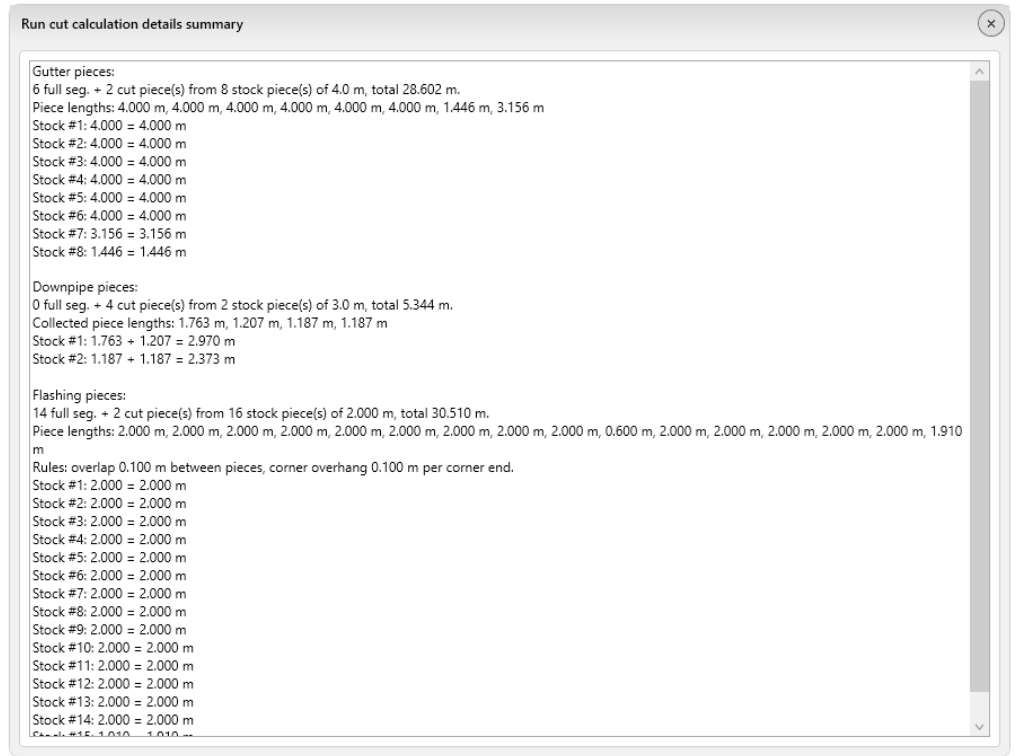
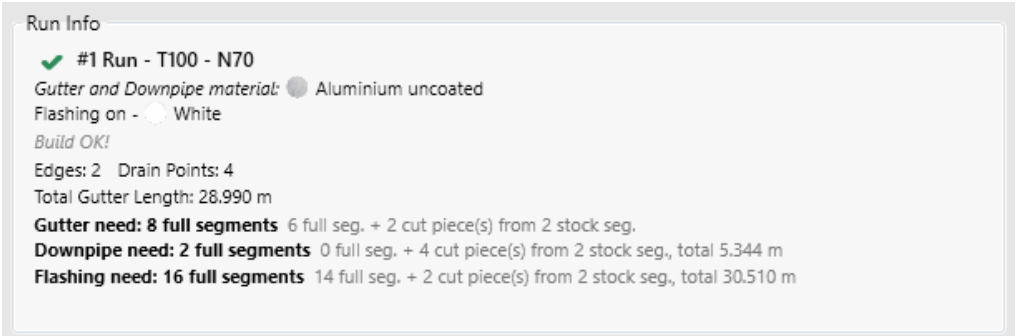
Experimenting with adding or moving drainpoints on a gutter run while the slope is exaggerated provides a clearer understanding of how the position and properties of the components are recalculated after each change to the drain-point settings and layout.

After reviewing the drainage relationship, return the slope to the intended realistic value, for example 1 mm/m.

13. Quantities, Scheduling and Material Optimization

13.1 Run overview panel

The *Run Info* panel overview summarizes important properties such as cross-section, material and flashing status/material.



13.2 Linear material need and segmentation

For linear components, the system can calculate material need for gutter straights, vertical or sloped downpipe straights, and flashing segments.

Individual Revit family instances do not inherently have any knowledge of other instances. A family can therefore report its own length, but standard Revit family parameters or schedules cannot perform a waste-aware cutting optimization across multiple instances.

The add-in solves this by treating the **complete gutter system as a single material requirement**. It collects the required lengths of all relevant linear components and creates an optimized cutting segmentation from the available stock lengths. This allows offcuts from one component to be reused for another component whenever possible, reducing both waste and the required number of stock pieces.

The resulting segmentation can be transferred back into the Revit model through parameters provided by the add-in. The Stock Demand parameter stores the result of the optimization for each individual family instance. Its value represents the proportion of the total stock-material requirement attributed to that instance.

A	B	C	D	E	F	G	H	I
GROVIK_Run_ID	Family	Type	Manufact	Count	Cut Length	Gutter Stock Demand	Downpipe Stock Demand	Flashing Stock Demand
01	GROVIK_Flashing_Eaves	B-205 A 160	GROVIK	2	28910	0	0	16
01	GROVIK_Downpipe_Shoe	N70	GROVIK	4	0	0	0	0
01	GROVIK_Downpipe_Straight_Slope	N70	GROVIK	4	5344	0	2	0
01	GROVIK_Downpipe_Swivel	N70		4	0	0	0	0
01	GROVIK_Downpipe_Branch	N70_60°	GROVIK	2	0	0	0	0
01	GROVIK_Downpipe_Elbow	N70_60°_D	GROVIK	4	0	0	0	0
01	GROVIK_Downpipe_Elbow	N70_60°_U	GROVIK	4	0	0	0	0
01	GROVIK_Gutter_Joint	T100	GROVIK	9	0	0	0	0
01	GROVIK_Gutter_Endcap	T100	GROVIK	2	0	0	0	0
01	GROVIK_Gutter_Straight	T100	GROVIK	9	28234	8	0	0
01	GROVIK_Gutter_Corner	T100_90 Ex	GROVIK	1	0	0	0	0
01	GROVIK_Gutter_Outlet	T100_N70	GROVIK	4	0	0	0	0
01: 49					62488	8	2	16

These values can then be used directly in Revit schedules. The sum of the Stock Demand values represents the total number of stock pieces required for the system. For example, if the optimized segmentation requires 9 stock pieces, the Stock Demand values of the individual instances will add up to 9.00, even though the individual values may be fractional.

A	B	C	D	E	F	G
GROVIK_Run_ID	Family	Type	Manufact	Count	Cut Length	Gutter Stock Demand
01	GROVIK_Gutter_Straight	T100	GROVIK	1	4432	1.194633
01	GROVIK_Gutter_Straight	T100	GROVIK	1	3821	1.02994
01	GROVIK_Gutter_Straight	T100	GROVIK	1	3508	1.069186
01	GROVIK_Gutter_Straight	T100	GROVIK	1	1749	0.532947
01	GROVIK_Gutter_Straight	T100	GROVIK	1	5806	1.769412
01	GROVIK_Gutter_Straight	T100	GROVIK	1	2355	0.634786
01	GROVIK_Gutter_Straight	T100	GROVIK	1	2355	0.634786
01	GROVIK_Gutter_Straight	T100	GROVIK	1	2104	0.567156
01	GROVIK_Gutter_Straight	T100	GROVIK	1	2104	0.567156
01: 9					28234	8

This approach provides two important benefits:

- **System-level optimization:** offcuts can be reused across different Revit family instances instead of being treated as waste for each individual component.

- **BIM-integrated quantities:** the result of the optimization is written back into the Revit family instances, allowing the optimized stock requirement to be included directly in Revit schedules and quantity reports.

13.3 Scheduling other components

To use the calculated material demand in Revit schedules, the required project parameters can be created through the **Scheduling** tab in the Grovik configuration options.

The add-in can create project parameters for the **Run ID**, **Gutter Stock Demand**, **Downpipe Stock Demand**, and **Flashing Stock Demand**, and write the calculated values to the corresponding Revit elements.

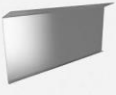
Once these parameters have been created and populated, the generated components — including nested-family components such as brackets, support rods and downpipe connectors — can be scheduled using native Revit schedules.

The screenshot shows the 'GROVIK' logo and the title 'Grovik Gutter for Revit - Configuration'. In the top right corner, there is a language dropdown menu showing the UK flag and a close button (X). Below the title bar, there are three tabs: 'Parameters', 'Component Library', and 'Scheduling', with 'Scheduling' being the active tab. Under the 'Scheduling' tab, there is a checkbox labeled 'Write calculated material demand to Revit elements' which is checked. Below this, there are four sections, each with a parameter name in a dropdown menu and a 'Generate' button:

- Run ID**: The dropdown shows 'GROVIK_Run_ID'. Below it, a description reads: 'A text parameter that records the run id in the elements.'
- Gutter stock demand**: The dropdown shows 'GROVIK_Gutter_Stock_Demand'. Below it, a description reads: 'A number parameter that records stock demand for gutter segments.'
- Downpipe stock demand**: The dropdown shows 'GROVIK_Downpipe_Stock_Demand'. Below it, a description reads: 'A number parameter that records stock demand for downpipe pieces.'
- Flashing stock demand**: The dropdown shows 'GROVIK_Flashing_Stock_Demand'. Below it, a description reads: 'A number parameter that records stock demand for flashing segments.'

13.4 Producing an order list

Combine the run overview, linear-material segmentation and Revit schedules to create a precise, waste-aware list of elements to order.

Grovik Quantities								
Family	Type	Manufacturer	Description	Model	NOBB number	Count	Cut Length	Type Image
GROVIK_Flashing_Eaves	B-205 A 140mm	GROVIK	Eaves flashing	B-205 profile A 140 mm	22433015	20	183508	
GROVIK_Downpipe_Shoe	N85				22432330	10	0	
GROVIK_Downpipe_Straight_Vertical	N85				22432249	10	25325	
GROVIK_Downpipe_Straight_Sloped	N85				22432249	10	0	
GROVIK_Downpipe_Elbow	N85_Custom_Down				Custom	10	0	
GROVIK_Downpipe_Elbow	N85_Custom_Up				Custom	10	0	
GROVIK_Downpipe_Bracket	Spacer_N85				51530965	16	0	
GROVIK_Gutter_Bracket	T125	GROVIK	Gutter bracket	T125 profile	29506839	306	0	
GROVIK_Gutter_Straight	T125	GROVIK	Gutter straight	T125 profile	29506748	36	174997	
GROVIK_Gutter_Endcap	T125				29510294	4	0	
GROVIK_Gutter_Joint	T125	GROVIK	Gutter joint strap	T125 profile	29506821	37	0	
GROVIK_Gutter_Corner	T125_90 External	GROVIK	Gutter corner	T125 profile, External, 90°	29506755	13	0	
		GROVIK	Gutter corner	T125 profile, Internal, 90°				

14. Recommended Workflow

1. Generate the system with the *One-Click Solution*, or define edges manually with *Add Edge*.
2. Place and adjust drain points; verify catchment lengths against the drain-spacing requirement.
3. Refine the control geometry, including slope, horizontal/vertical offsets and open-run extensions.
4. Set run properties such as gutter/downpipe sections, brackets, flashing and materials.
5. Preview the result with the slope profile and visual aids.
6. Build the run, or enable *Auto Build Run* when continuous updating is preferred.
7. Configure downpipes connections to walls and floors, and further properties like connectors.
8. Review quantities and material segmentation, then create Revit schedules and the final order list.

15. Tips and Best Practices

- Start with the *One-Click Solution* when the roof geometry is suitable, then refine rather than building everything from scratch.
- Use control geometry and drain points as the primary design inputs; avoid moving generated instances directly unless you intentionally want to create a drift condition.
- Check catchment lengths after changing drain-point positions or roof geometry.
- Use *Track Roof Geometry* when the roof is still evolving and automatic following is useful.

- Use *Refresh* when tracking is off and you need to explicitly synchronize a run with changed roof geometry.
- Use slope exaggeration temporarily for visual review only; restore the intended slope before final generation.
- Use *Build Run* deliberately on large models when performance matters; *Auto Build Run* is convenient but can trigger repeated rebuilds.
- Use the run list to keep track of the defined gutter runs in the project.
- Review segmentation before ordering linear materials to reduce offcuts and waste.

16. Troubleshooting / FAQ

The run is orange / needs to be rebuilt

The generated Revit instances do not match the expected control geometry or run settings. Inspect *Components List* to identify the mismatch, then use *Build Run* to resolve the contradictions.

The downpipe has drifted from the drain point

If the instance is in the correct position and the control point should follow it, use *Snap Drain Point* to drifted instance. If the control geometry is correct and the instance should follow it, use *Build Run*.

Roof geometry changed and the gutter no longer matches

If *Track Roof Geometry* is enabled, allow the system to follow the roof changes. If the *Track Roof Geometry* option is disabled, the difference is still recognized by the add-in. In this case, use the yellow *Refresh* button in the *Run List* to resynchronize the run with the current roof geometry.

Catchment length exceeds the drain spacing

Add a drain point or adjust the drain-spacing value, then review the catchment lengths again.

Rebuilding takes a long time

Complex nested families, particularly downpipes and brackets, can require significant processing. On large projects, avoid unnecessary repeated rebuilds and use *Auto Build Run* selectively.

A generated component has the wrong product setting

The run may be in the needs-to-be-rebuilt state. Review the component list and run properties, then use *Build Run* to apply the intended settings.

17. Glossary

Gutter run — A continuous chain of connected gutter edges.

Gutter edge — A picked roof or floor edge along which a gutter is generated.

Control geometry / control lines — The hypothetical path representing the expected position of the Revit family elements before or independently of component generation.

Drain point — A control point where water is directed into a downpipe.

Outlet — The component connecting the gutter to the downpipe at a drain point.

Downpipe — The vertical drainage element, implemented as a complex nested family.

Slope profile — The chain of lines showing how the gutter system is sloped.

Catchment length — The gutter length draining toward a particular drain point.

Build / Rebuild Run — The operation that generates or updates the actual Revit family components to match the control geometry and selected settings.

Appendix A — Button / Command Reference

Button / Command	Purpose	Typical use
One-Click Solution	Automatically detects relevant roof edges and creates an initial gutter system.	Initial system creation
Add Edge	Adds a selected roof/floor edge to a gutter run.	Manual run definition
Add Drain Point	Adds a drain control point.	Manual drainage layout
Move Point / Move Drain Point	Repositions a drain point along the gutter edge.	Drainage refinement
Refresh	Synchronizes defined edges with changed source geometry.	Manual roof-geometry update
Build Run	Generates or updates Revit family components.	Apply control geometry/settings
Auto Build Run	Automatically rebuilds after relevant changes.	Continuous updating
Add Edge	Creates/extends the gutter edge chain from selected model edges.	Manual geometry
Add Drain Point	Places a drain point manually.	Drainage layout
Attach Downpipe	Adds an existing downpipe to the gutter system.	Reuse existing downpipes
Snap Drain Point to Drifted Instance	Moves a control point to a drifted generated instance.	Resolve intentional instance movement
Project Selected Downpipes Horizontally	Projects selected downpipes horizontally.	Downpipe alignment
Project Selected Downpipes Vertically	Projects selected downpipes vertically.	Downpipe alignment
Auto Align Downpipes	Projects downpipes to the first surface hit during Build Run.	Automatic alignment
Show Brackets	Controls bracket display/generation.	Visual/component configuration
Show Labels	Displays run IDs in the viewport.	Multiple-run organization
Show Offset Curve	Displays the offset curve.	Offset verification

Appendix B — Product Ranges

The available product range depends on the installed Grovik package and its product data. The manual should therefore be used together with the current Grovik product catalogue when selecting exact product codes and variants.

- Gutter sections —T100, T120, T125, T150.

- Downpipe sections — N70, N85.
- Flashing types — available types can be filtered using product-selection dropdowns.
- Top and bottom downpipe connectors — including the documented connector configurations.
- Intermediate connectors — branch or collector-type connectors with adjustable placement and angle values.

Document Notes

This manual was prepared from the supplied Grovik Gutter for Revit manual outline and tutorial transcript. Where the source material did not specify exact installation steps, supported Revit versions, licensing details, or a complete product catalogue, those details have deliberately not been invented.

Recommended additions for the next revision: annotated screenshots of the Grovik ribbon and Editor window, screenshots for each major command, exact supported Revit versions, installation/licensing procedure, a complete button-state reference, and a verified product-range table.